

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/087148 A1

(51) International Patent Classification⁷: **A61F 5/01**

(21) International Application Number:
PCT/US2005/008010

(22) International Filing Date: 10 March 2005 (10.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
NZ 531705 10 March 2004 (10.03.2004) NZ

(71) Applicant (for all designated States except US): **OMNI
LIFE SCIENCE, INC.** [US/US]; 1390 Decision Street,
Vista, CA 92081 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **GILMOUR, Robert**
[NZ/NZ]; 8 Avon Street, Parnell, Auckland 1005 (NZ).

(74) Agent: **COLLETT, James, W.**; Duane Morris LLP, 101
West Broadway, Suite 900, San Diego, CA 92101 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

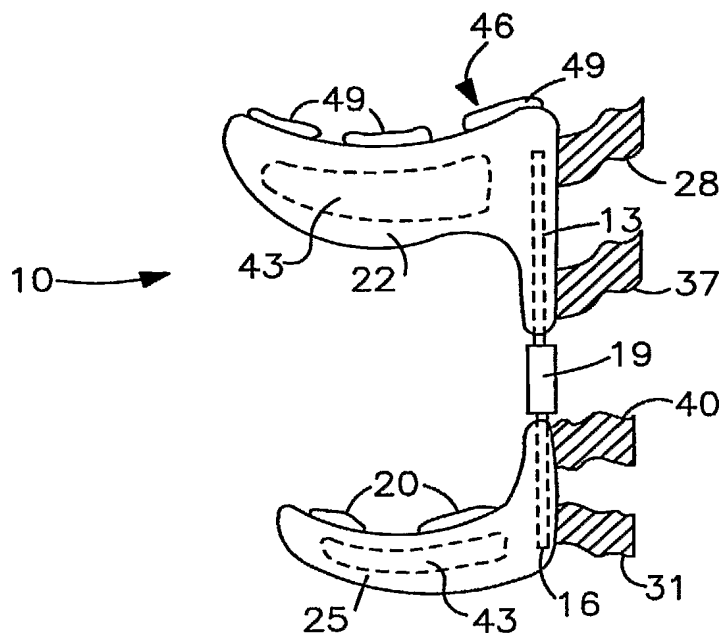
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: ORTHOTIC DEVICE AND SEGMENTED LINER



(57) Abstract: An orthotic device is provided having a support member (22, 25) adapted to be secured to a body portion of a user and a resilient liner (46) connected to a side of the support member adjacent the body portion of the user. The support member can be malleable to conform to the user's body. The liner has a plurality of discrete liner segments (49), at least one adapted to conform to body of the user. The liner segments can be removably attached to the support member, and can be adjustable in shape and/or size. The liner segment can be a pair of individually adjustable segment portions to provide adjustable shape, and either of the portions can be inflatable to provide adjustable size. The liner segment can include an electrode portion (58) to impart therapeutic stimulation to an associated body portion and can include a micro-porous waterproof cover material contacting the body portion of the user.

WO 2005/087148 A1